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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/475,544	12/30/1999	MICHAEL PUTNAM	PGI6044P0020	6475

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04/23/2002

ROCKEY MILNAMOW & KATZ LTD
TWO PRUDENTIAL PLAZA
SUITE 4700
180 NORTH STETSON AVENUE
CHICAGO, IL 60601

EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT	PAPER NUMBER
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1771

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DATE MAILED: 04/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-8

Office Action Summary

Application No.

09/475,544

Applicant(s)

PUTNAM ET AL.

Examiner

Norca L. Torres-Velazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
 Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-92 is/are pending in the application.
- 4a) Of the above claim(s) 14-44 and 52-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 45-51 and 76-92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Applicant's arguments filed on January 25, 2002 have been fully considered but they are not persuasive.

- a. Applicants argue that Suskind et al. is limited to formation of fabric formed from wood pulp fibers and staple length fibers. Further, Applicants have amended the claims by using "consists essentially of" instead of 'comprising'.

It is noted that the Suskind et al. reference teach a nonwoven fabric that comprises a continuous filament bonded web base and a wet laid second fibrous web. "Consisting essentially of" does not mean "consisting of" Ex parte Appeldorn & Gilkeson (PO BdApp) 159 USPQ 791. By using the transitional phrase "consisting essentially of", Applicant is not precluding the inclusion of additional elements to the nonwoven fabric.

The phrase "consisting essentially of" still reads as "comprising" except when additional elements affect the scope of the invention. The addition of staple fibers to the continuous web will not affect the hydroentanglement of the continuous filaments; otherwise Applicants' dependent claim 5 would be improper.

- b. Regarding claims 45 and 47, these remain rejected under 35 U.S.C. 112, second paragraph. On pages 10 and 13 of the specification, the concept of "free of filament ends intermediate end portions of said fabric" is not clearly defined. The specification describes how substantially continuous filaments are maintained and that free fiber ends are not created by the process of hydroentanglement, but it does not define what Applicants refer to as "intermediate end portions". Clarification is requested.

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- c. Claim 51 remains rejected under 35 U.S.C. 112, second paragraph as stated in previous action, since this was not addressed in Applicants' response.

Claims 1-13, 45-51 and 76-92 remain rejected.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

1. Claims 45-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 45 and 47, the phrase "free of filament ends intermediate end portions of said fabric" is not clear, please clarify the language.

Regarding claim 51, the language in this claim is very confusing; it is not clear to what fabric the percentages of weight are referring. Is the 10% to 60% of the weight referring to just the laminations comprising the polypropylene thermoplastic filaments only or it also refers to the plural laminations that comprise polyethylene? Is the 40% to 90% referring to only the polyethylene laminations or the combinations of all laminations in the fabric? Claim 51 needs to be corrected.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 1-7, 11-12 and 47-50 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over SUSKIND et al. (US Patent 4,808,467) as stated in previous action.

SUSKIND et al. discloses a spunlaced fabric suitable for disposable medical applications that is produced by hydraulically entangling wood pulp and staple fibers with a continuous filament base web producing a nonapertured high strength fabric, and treating the fabric with a fluorocarbon water repellant. (Column 1, lines 12-17).

The reference teaches the use of polyethylene, polypropylene, polyester and nylon as polymers from which the continuous filaments are made. (Column 3, lines 7-11). The reference also discloses that the basis weight of the finished fabric may range from about 0.8 ounce per square yard to about four ounces per square yard (which is equivalent to 27.2 gsm –135.8 gsm). (Column 3, lines 30-32).

SUSKIND et al. further discloses that the high strength nonwoven fabric comprises a wet laid second fibrous web consisting essentially of 50 to 90 weight percent wood pulp and 10 to 50 weight percent staple length fibers intimately hydroentangled with one another and with the base web. (Refer to claim 1). The reference also discloses that the basis weight of the continuous filament base web is in the range of from about 0.15 to 0.8 ounce per square yard (5.1 to 27.1 g/m²). (Refer to claim 10).

In example I (Column 5), the fibers of the two webs are hydroentangled by subjecting them to the action of two rows of water jets operating at a manifold pressure of 200 psig, four rows at a manifold pressure of 600 psig, four at 1200 psig and four at 1800 psig.

Regarding claim 47, a variation of the bonding temperatures of thermoplastic filaments in adjacent laminations depends on the polymeric constitution of these; therefore, this can be achieved by using different polymers such as the ones taught by SUSKIND et al. (Refer to Column 3, lines 7-11).

It is noted that SUSKIND et al. is silent with respect to the claimed interengaged packed loops. However, it is reasonable to presume that the claimed interengaged packed loops are inherent to the invention of SUSKIND et al. Support for said presumption is found in the use of the same starting materials (i.e. continuous filament base web), like processes of making the articles (i.e., the reference uses hydroentangling pressures that read on Applicant's specification), and the production of similar end products (i.e., fabric for medical apparel, etc...). The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the presently claimed hydroentanglement in the form of interengaged packed loops would obviously have been provided as a result of the inventive high strength hydroentangled nonwoven fabric of the SUSKIND et al. reference. *Note In re Best*, 195 USPQ 433.

4. Claims 8-10, 13 and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over SUSKIND et al. (US Patent 4,808,467) as described above, and stated in previous action.

Regarding the Applicant's ranges for the limitations of machine direction elongation, cross direction elongation, fiber entanglement frequency, fiber entanglement completeness value and fiber interlock value are broad and encompass typical values that are found in the prior art. For example, as in the BUNTING et al. reference disclosed by Applicants. The reference discloses a textile-like nonwoven fabric with a fiber-interlock value of at least 10 and internal bond values of at least 0.2 foot-pound and having at least 10 discrete parallel regions of three-

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dimensional fiber interentanglement per inch. (Refer to Claim 1). Further each of the elements are recognized as result effective variables in this field of endeavor and it has been held that discovering optimum values would have been or result effective variables involves only routine experimentation.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 46-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over SUSKIND et al. as applied to claims 1-13 and 45-50 above, and further in view of MARMON et al. (US 6,200,669 B1) as stated in previous action.

The SUSKIND et al. reference fails to teach nonwoven fabrics of continuous filaments that are initially thermally point bonded prior to being hydroentangled.

MARMON et al. discloses nonwoven fabrics that are made by bonding the fibers of a substrate by thermal point bonding and then hydroentangling the bonded multicomponent fibers with a water pressure from about 400 to 3000 psi. (Abstract) The reference further discloses that the entangled web may have bond areas therein comprising at least about 5% of the surface area of the web. The bond areas are at least partially degraded with a portion of the continuous fibers within the bond areas separated from said bond points. (Column 2, lines 66-67 to column 3, line 1).

Since SUSKIND et al. and MARMON et al. are both from the same field of endeavor; the purpose disclosed by MARMON et al. would have been recognized in the pertinent art of SUSKIND et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the nonwoven fabric disclosed by SUSKIND et al. and provide it with layers of nonwoven fabric of continuous filaments initially thermally point bonded for the purpose of producing a cloth-like fee as well as improved barrier properties. Further to produce fabrics with considerably increased softness relative to pre-entangled bonded substrate as disclosed by MARMON et al. (Refer to Column 12, lines 32-36).

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 703-306-


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5714. The examiner can normally be reached on Monday-Thursday 7:30-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

nlt
April 19, 2002



CHERYL A. JUSKA
PRIMARY EXAMINER